

## Controlling the spread of NOROVIRUS

**Noroviruses** are a group of viruses that cause gastrointestinal illness. The symptoms are nausea, vomiting, abdominal cramps and diarrhea. Some people also experience headache, fever, chills, muscle ache and general tiredness. Onset of illness is generally within 12-48 hours of exposure and symptoms can last 12-60 hours. Infected persons can be contagious for up to 2 weeks after they recover.

**Illness** can be caused by fewer than 100 viral particles. Noroviruses survive chlorine levels of less than 10 ppm, freezing, heating to 60° C (140° F), and can persist in the environment. Food and drinks can easily become contaminated by direct contact with hands or work surfaces that are contaminated with stool or vomit, or by tiny droplets from nearby vomit that lands on food.

**People can become infected with the virus by:**

- Eating food or drinking liquids that are contaminated
- Touching contaminated surfaces or objects, then placing their hands in their mouths
- Having direct contact with an infected person

**Prevention:** The Department of Environmental Conservation, Food Safety and Sanitation Program, in cooperation with the Department of Health and Social Services, Section of Epidemiology, encourages you to take the following precautions to protect your staff, clients and business.

1. Do not allow ill employees to work in situations where food, beverages or ice can be contaminated or the illness can be spread person-to-person or through environmental contamination. Ill employees should be well for 3 days prior to returning to work. In addition, because the virus can be present in the stool for 2 to 3 weeks after the person feels better, strict handwashing is important to prevent the spread of the virus.
2. Cruise ship employees should not switch to another vessel unless they are completely free of symptoms and have not been ill within the last 10 days.
3. Ensure all employees follow strict handwashing procedures, especially after cleaning up after an illness incident, and after using the restroom. Hands (including wrists, between fingers and under nails) should be vigorously washed for 20 seconds using soap and warm running water, and dried with a single-use towel. Food employees handling ready-to-eat food should wear disposable gloves.
4. Post handwashing procedures in both guest and employee restrooms.
5. Ensure employees wear disposable gloves when cleaning up following an incident, handling soiled linens, or emptying refuse containers.

6. Keep detergents and sanitation supplies available for immediate clean up of vomit or fecal material. Chlorine based products are the most effective sanitizers against norovirus.
  - For chlorine, a solution of 1,000 ppm should be used on hard, non-corrosive surfaces after thoroughly cleaning the surface with a detergent to remove the gross soil. This includes all possibly contaminated surfaces that could be touched by patrons such as rails, door knobs, bathroom fixtures, counters, dining tables, etc. A 1000 ppm solution can be made by adding 3 ounces of unscented household bleach (about ¼ cup) to 1 gallon of water, or 2 TBL to 1 quart. (If using commercial chlorine sanitizers, follow the directions on the label for making various concentrations). For maximum benefit, chlorine sanitizers should be allowed to air dry, or remain in contact with surfaces for several minutes before flushing or rinsing
  - A solution of up to 5,000 ppm (about 2 cups of unscented household bleach to 1 gallon of water) should be used on heavily contaminated hard surfaces that have been directly exposed to the virus (e.g. bathroom floors contaminated with fecal material or vomit.)
7. On modes of transportation, provide easy access to motion sickness bags for passengers and be sure they know where they are located.
8. Advise guests:
  - to pay meticulous attention to hand-washing and to use toilet facilities in their assigned rooms where possible;
  - of the symptoms of norovirus, and to contact designated employees if they experience any of these symptoms;
  - of recommendations to prevent the spread of their illness such as not participating in public gatherings until 3 days after they have recovered
9. Launder linens in 160°F water and add bleach to the rinse water; do not agitate linens soiled with vomit or fecal material, in order to minimize the risk of aerosolization of the virus.
10. Clean and sanitize other common items such as ice buckets between use by guests.
11. Cruise companies operating in international waters must notify CDC Vessel Sanitation Program 1 (800) 323-2132 when 3% of passengers or crew are ill with vomiting or diarrhea. Tour companies operating wholly within Alaska, or health care providers seeing an unusual number of tourists or tourism industry employees ill with vomiting or diarrhea notify the Alaska Section of Epidemiology (907-269-8000 during business hours or 1-800-478-0084 after hours) as soon as possible.
12. When routine disinfection measures are unsuccessful at interrupting the spread of virus during an outbreak, more extensive disinfection and a period of time without passengers aboard might facilitate elimination of the virus on vessels.